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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/822,689	04/13/2004	Jun Kamada	01-51400	2895
79326	7590	10/22/2009	EXAMINER	
Fujitsu Patent Center			KANE, CORDELLA P	
C/O CPA Global			ART UNIT	
P.O. Box 52050			PAPER NUMBER	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/822,689

Applicant(s)

KAMADA ET AL.

Examiner

CORDELIA KANE

Art Unit

2432

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 August 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 17-22, 24-33, 35 and 36 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 17-22, 24-33, 35 and 36 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SF/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 17 – 22, 24 – 33, 35 and 36 have been considered but are moot in view of the new ground(s) of rejection.
2. Applicant's arguments with regards to 101 filed August 6, 2009 have been fully considered but they are not persuasive. Applicant argues that the method is now tied to a CPU, however this does not impose meaningful limitations on the claim's scope and the claim fails to disclose how the machine implements the process. The addition is merely a field of use limitation.
3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 101

4. Claim 27 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The method is not tied to a particular machine and is therefore non-statutory.

Claim Rejections - 35 USC § 103

5. Claims 17, 18, 20, 24, 25, 27 – 29, 31, 35, and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Keller, and further in view of Ellison et al's US Patent 6,507,904. Referring to claims 17, 27 and 28, Keller teaches:

- a. An input unit to input a command that is executed by using a firmware or a logic circuit (column 27, lines 9-11).
 - b. A retaining unit to retain a plurality of resources to be executed by using a firmware or logic circuit (column 22, lines 45-49).
 - c. A storing unit to store a plurality of operating mode, each one of the modes corresponding to a different set of commands that are available when the each one of the operating modes is set (column 33, lines 10-11).
 - d. A determining unit to determine whether the input command is included or not in the set of commands corresponding to a current operation mode (column 27, lines 19-23).
 - e. An execution unit to acquire resources from the access control unit (column 27, lines 34-37) and to execute the input command by using the firmware or the logic circuit, when the input command is included in the set of commands corresponding to the current operation mode (column 27, lines 17-21).
6. Keller does not explicitly disclose:
- f. The operating modes corresponding to a different set of resources required for executing the commands that are available when the each one of the operation modes is set,
 - g. An access control unit to refine the resources retained by the retaining unit to an accessible set of resources corresponding to the current operation mode, and to determine, when the input command is included in the set of commands

corresponding to the current operation mode, whether a necessary resource to execute the input command is included or not in the accessible set of resources.

7. However, Ellison discloses the operating system having various rings, or operating modes and each ring is a logical division of hardware and software (column 3, lines 64-67). Ellison goes on to teach the processor verifying and loading a ring-0 nub software module into the isolated area of memory (column 4, lines 63-65). Keller and Ellison are analogous art because they are from the same field of endeavor, computer systems. At the time of the invention, it would have been obvious to one of ordinary skill in the art, having the teachings of Keller and Ellison before him or her, to modify the system of Keller to include the rings of Ellison. The suggestion/motivation for doing so would have been to protect the integrity of computer systems and increase trust of users (column 1, lines 21-24).
8. Referring to claims 18 and 29, Keller teaches that the input unit inputs an operation mode adding command for storing a new operation mode in the storing unit, and the execution unit makes the storing unit store the new operating mode (column 28, lines 6-10).
9. Referring to claims 20 and 31, Keller teaches a firmware acquiring command for acquiring a new firmware, and then acquiring that firmware (column 9, lines 35-39).
10. Referring to claims 24 and 35, Keller teaches:
 - h. An operation mode deleting unit that deletes a specified operation mode from the storing unit (column 36, lines 21-22).

- i. A firmware deleting unit that deletes firmware corresponding to the operation mode deleted (column 36, lines 12-14).
11. Referring to claims 25, and 36, Keller teaches requesting an external emulator to execute the input command when the input command is not included in the set of commands corresponding to the current operation mode (column 36, lines 35-44). While it does not explicitly state that an error occurred, it is inherent that the system must have encountered an error to be able to detect that the application was in a legacy format.
12. Claims 19 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Keller in view of Ellison and further in view of Heinonen et al's US Patent 6,633,758 B1. Keller in view of Ellison discloses all the limitations of the parent claims. Keller in view of Ellison does not explicitly disclose storing the new operation mode when the number of commands is greater than the number of commands corresponding to any one of the operating modes. However, Heinonen discloses creating a new operational mode consisting of existing parameters from existing operational modes and adding additional application specific parameters (column 3, lines 4-10). Keller in view of Ellison and Heinonen are analogous art because they are from the same field of endeavor, communication devices. At the time of the invention, it would have been obvious to one of ordinary skill in the art, having the teachings of Keller in view of Ellison and Heinonen before him or her, to modify the system of Keller in view of Ellison to include the addition of operating modes of Heinonen. The suggestion/motivation for

doing so would have been to have more available applications (column 1, line 67-
column 2, line 11).

13. Claims 21, 22, 32, and 33 are rejected under 35 USC 103 (a) as being obvious over Keller in view of Ellison and further in view of Bryon Nevis et al's US Patent 6,581,159. Referring to claims 22 and 33, Keller in view of Ellison discloses all the limitations of the parent claims. Keller in view of Ellison does not appear to explicitly disclose encrypting the firmware with a digital signature. However, Nevis discloses using digital signature techniques to validate the firmware (column 4, lines 28-30). Keller in view of Ellison and Nevis are analogous art because they are from the same field of endeavor, of changing operating modes. At the time of the invention, it would have been obvious to one of ordinary skill in the art, having the teachings of Keller in view of Ellison and Nevis before him or her, to modify Keller in view of Ellison to include the encryption of Nevis. The motivation for doing so would have been that it is more secure and resistant to tampering (column 1, 26-27).

14. Referring to claims 21 and 32, the digital signature technique, as described in claims 22 and 33, is an encryption/decryption method, therefor claims 21 and 32 are also rejected. In addition, Nevis teaches that the firmware is encrypted (column 6, claim 7).

15. Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Keller in view of Ellison, further in view of Mark Biondi's US Patent 6,622,246 and further in view

of Brent Gregory et al's US Patent 5,748,488. Referring to claim 26, Keller in view of Ellison discloses all the limitations of the parent claim, as well as acquiring firmware (Keller, column 9, lines 35-39). Keller in view of Ellison does not appear to explicitly disclose loading logic circuit data instead of firmware. However, Biondi discloses using a logic circuit instead of firmware (column 6, lines 26-30). At the time of the invention, it would have been obvious to one of ordinary skill in the art, having the teachings of Keller in view of Ellison and Biondi before him or her, to modify the firmware acquiring of Keller in view of Ellison to include using a logic circuit instead of Biondi. The motivation for doing so is that any machine capable of performing the steps of the firmware could be used to replace it (column 6, lines 32-35).

16. Keller in view of Ellison in view of Biondi does not appear to disclose how to implement the logic circuit that is replacing the firmware. Gregory discloses that to generate a logic circuit all that is needed is the information on the signals (column 2, lines 28-30). Therefor instead of passing the actual firmware, as taught by Keller in view of Ellison, one would need to pass the data on the signals. Gregory goes on to disclose how to generate that logic circuit after receiving the appropriate information on the signals (column 2, lines 40-42). At the time of the invention, it would have been obvious to one of ordinary skill in the art, having the teachings of Keller, Ellison, Biondi and Gregory before him or her, to modify Keller in view of Ellison in view of Biondi to include generating the logic circuit of Gregory. Therefor it would have been obvious after modifying Keller in view of Ellison with Biondi to include how to implement the logic circuit mentioned as taught by Gregory.

Conclusion

17. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CORDELIA KANE whose telephone number is (571)272-7771. The examiner can normally be reached on Monday - Thursday 8:00 - 5:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gilberto Barron can be reached on 571-272-3799. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/C. K./
Examiner, Art Unit 2432

/Benjamin E Lanier/
Primary Examiner, Art Unit 2432